

**EVALUATIVE STUDY OF THE USE OF WHATSAPP IN THE  
SPREAD OF FAKE NEWS IN OWERRI METROPOLIS**

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**Abstract**

This study evaluates the use of WhatsApp in the dissemination of fake news and misinformation in general and, in the light of a global pandemic, about the Coronavirus 19 disease, in Owerri, Imo State. Specifically, it aimed at determining if WhatsApp facilitates the spread of fake news and misinformation; assesses the attitude of WhatsApp users to sharing fake news and misinformation using the medium and determine the extent of spread of fake news and misinformation about Coronavirus through WhatsApp. The survey research method was used where the questionnaire was the instrument used to obtain data from the area of the study. Purposive sampling technique was used in distributing the questionnaire to produce data from 424 respondents. Results showed that WhatsApp greatly facilitates the spread of fake news and misinformation about many issues in Nigeria and social media users were more exposed to fake news on WhatsApp than other applications. The researchers also found out that WhatsApp users

were not usually happy when they passed on fake news, and that many users debunk fake news on their WhatsApp groups. Fake news about the Coronavirus was spread to a great extent using WhatsApp as the more frequent a user used WhatsApp the more exposed to fake news about the virus the user was. The recommendations are that users of WhatsApp should learn to fact-check information received via the app before forwarding such; that the health management agencies reach the populace with information about the Coronavirus using WhatsApp, and that WhatsApp users should more frequently debunk fake news of all types, including about the virus, in their various WhatsApp groups.

**Keywords: misinformation, whatsapp, fake news, coronavirus, social media**

## INTRODUCTION

The escalation in use and prominence of social media has led to the crisis of fake news and misinformation. Fake news affects more than politics and issues around governance: ‘Fake news has important implications in politics, but also in areas such as health and nutrition, climate science, and financial information’ (Weir, 2020). Examples include the misinformation of the *anti-vaxxers* movement (Royal Society for Public Health, 2018), fake news circulated about the Ebola epidemic (Emmanuel, Ibeh & Audu, 2014), and the Coronavirus pandemic (Boseley, 2020; BBC).

Lazer et al (2018, p 1094) defined fake news as ‘fabricated information that mimics news media content in form but not in organisational process or intent.’ Alcott and Gentzkow (2019, p 213) define fake news to be ‘news articles that are intentionally and verifiably false, and could mislead readers.’ Fake news can either be misinformation or disinformation. False information that is purposively disseminated is disinformation while inadvertent false information is misinformation.

As internet penetration increases in Nigeria (Orija 2020), leading to the proliferation of smartphones, many people now rely on social media for news, information and interpersonal communication. Social media applications like WhatsApp, Facebook, Twitter, Wordpress, YouTube, Reddit, Snapchat and Instagram have become extremely popular, with many Nigerians across all ages and educational qualifications using them. Use of these digital media has blossomed so much that they now share the burden of news and information dissemination with mainstream media.

The outbreak of the Coronavirus 19 Pandemic in China in late December, 2019 led to global lockdowns and panic as the virus spread across the world. It also created a public health communication challenge for many countries and created some escalation to the fake news epidemic that had affected the public sphere with the subsequent propagation of fake cures, rumours, conspiracy theories and hoaxes on social media platforms. Stories about the development of the virus in a laboratory by either the Chinese government or the American military; the emanation of the virus from an exotic meats market in Wuhan; accusations of scheming to depopulate the world with a vaccine against Bill Gates; the 5G controversy, and numerous cures and medical advice were spread on various social media. The flow of misinformation was so much that the World Health Organisation's (WHO) Director-General, Tedros Adhanom Ghebreyesus, at the Munich Security Conference on February, 15 2020 described the situation thus: "We're not just fighting an epidemic; we're fighting an infodemic" (Zaracostas, 2020, p1).

The popularity and massive usage of social media for news, information and interpersonal communication, coupled with the speed at which communication moves on these platforms, has led to social media being seen by many people as the major vector in the spread of fake news and misinformation globally. Therefore, this study is designed to evaluate if the use of WhatsApp - a recent but popular social messaging application (Dahir 2018, p1) - has a determinable

role in the spread of fake news and misinformation in general, and about the Coronavirus in Imo State, Nigeria.

## **STATEMENT OF THE PROBLEM**

The Information Age has brought with it a plethora of means and ways to digitally transmit news and information. Social media, the most innovative of these means, has revolutionised interpersonal and mass communication (Harper 2010), and changed the way news is consumed (Bergström and Belfrage 2018). Citizen journalists now compete with the mainstream media in producing and disseminating content, and this novelty - to self-publish - has helped cement the popularity of social media in the public sphere and blurred the lines between producer and consumer.

However, this liberalisation of the ability to produce and mass distribute content may have facilitated the proliferation of fake news and modified the attitudes of users towards misinformation, a situation which may be the reason for the rise in conspiracy theories and the loss of a shared reality. The outbreak of a global Coronavirus pandemic with its attendant novelty and panic created an added reason for fake news to go viral on social media. A situation that became so concerning that the WHO described it as an “infodemic.” Nigeria was not spared, as misinformation also swirled on Nigerian social media, especially WhatsApp which is extremely popular. According to The Global State of Digital in 2019 report, at least 85% of Nigeria’s 24 million active social media users use WhatsApp, placing it ahead of Facebook and Instagram as the most used social media application ([datareportal.com](http://datareportal.com)).

This study, therefore, intends to evaluate the use of WhatsApp, one of the most popular social media applications in Nigeria, in the dissemination of fake news and misinformation, including fake news about the Coronavirus pandemic in Owerri, Imo State.

## **OBJECTIVES OF THE STUDY**

The study aimed to:

1. Determine whether WhatsApp is facilitating the spread of fake news and misinformation.
2. Examine the attitude of WhatsApp users to sharing fake news and misinformation using WhatsApp.
3. Determine the extent of spread of fake news and misinformation about Coronavirus via WhatsApp.

## RESEARCH QUESTIONS

The study is guided by the following questions:

1. Is WhatsApp facilitating the spread of fake news and misinformation?
2. How do WhatsApp users feel about sharing fake news and misinformation in the app?
3. To what extent is WhatsApp used in spreading fake news and misinformation about the Coronavirus?

## Hypothesis

**H<sub>01</sub>:** There is no significant relationship between the frequent use of WhatsApp and exposure to fake news and misinformation about the Coronavirus disease.

## LITERATURE REVIEW

### Empirical Review

A study to examine the effects of alternative facts in Nigeria and India found out that social media produced a higher number of fake news than mainstream media. The work which focused on Facebook, Twitter and WhatsApp showed that social media users were keen to share information without fact-checking first. The study conducted by Edwin and Yalmi (2019) concluded that fake news shared on social media platforms in Nigeria had caused loss of lives, property and ethics.

The idea that the phenomenon of fake news, misinformation and disinformation is mainly a first world problem was debunked in a study by Wasserman and Madrid-Morales (2019) where they explored the fake news phenomenon using a two-wave online survey in Kenya, Nigeria and South Africa. After surveying 1,847 people spread across the three countries, they found out that perceived exposure to fake news is high, plus a low trust in both social and traditional media.

A comparative study by Chakrabarti, Rooney and Kweon (2019) for the BBC looked at fake news from the angle of a social phenomenon in Nigeria and Kenya with the objective of finding out what makes people disseminate fake news. Their research used multiple methodologies including auto ethnography, semiotic analysis, big data/network analysis and in-depth conversations to find out the social and cultural phenomena involved in the spread of fake news. The researchers found out that both Kenyans and Nigerians are aware of the effects of sharing fake news, especially if such news can lead to violence.

However, because they get both news and fake news from the same social media platforms, it is getting more difficult for users to distinguish between the two. The authors reveal that users from both countries do not use fact checking websites like “Africa Check” or look for markers like “forwarded” (on WhatsApp) to distinguish fake news from news. Rather, they found out that users look at the source and the sender of the messages as a means to fact-check. Finally, they discovered that social media users in Kenya and Nigeria are depending on their social networks to verify content, instead of ‘looking up legitimate news outlets leading to the unwitting spread of fake news’ (6-7).

With the advent of Covid-19, fake news proponents found a new field with the propagation of fake cures, rumours, hoaxes and conspiracies. Hollowood and Monstrous (2020) conducted a study in early February, 2020, before the pandemic peaked in Europe, and found many examples of fake news about the Covid-19 on the major

social media platforms. They listed examples like a YouTube video with over 16,000 views that promoted Chlorine dioxide (bleach) as a cure for Covid-19. Another was a British nurse who blamed 5G networks for causing the Covid-19 deaths. The study revealed that the Facebook video of the nurse had over 100,000 views. The study which was conducted at the Bruno Kessler foundation in Italy involved the identification of a database of 5.9 million virus-related tweets and analysing them using machine learning.

A survey in the United Kingdom by OFCOM to find out how people were getting news and information about the pandemic revealed that while four out of five said they received information about Covid-19 from the BBC, “15% say they use closed groups, such as WhatsApp groups and Facebook Messenger.” The study, which involved a weekly online survey of 2000 respondents to gauge how people were getting news and information about the coronavirus and attitudes towards Covid-19 and media coverage revealed that half the respondents have come across misleading information about the virus. On the actions taken by respondents after seeing fake news, the research reports that: “37% checked it with friends and family; 10% checked it with a fact-checking resource; and 7% reported or blocked it. Some 7% said they forwarded it on” ([ofcom.org.uk](https://www.ofcom.gov.uk/consult/condocs/2020/20200314), 2020).

In a paper in the *Lancet* titled, *How to Fight an Infodemic*, Zarocostas (2020) X-rayed the efforts of the WHO to mitigate the global epidemic of misinformation that spread through social media platforms and became a public health challenge. The study which involved In-depth interviews with the global communications team at WHO revealed that disease outbreaks since the Middle Ages are usually followed by a torrent of information, including misinformation, rumours and conspiracies. “But the difference now with social media is that this phenomenon is amplified, it goes faster and further, like the viruses that travel with people and go faster and faster” (pg 1). The author goes on to highlight the role of WHO communications globally, especially its collaboration with Facebook

(WhatsApp's parent company), Twitter, Tencent, Pinterest, TikTok, Chinese social media platforms and Google to make sure that evidence-based answers are available online to check misleading and false information.

## **THEORETICAL FRAMEWORK**

This study is anchored on two theories – the normative Libertarian (Free Press) Theory of the press and the user-centred Uses and Gratification Theory (UGT).

In its basic form, the Libertarian or Free Press Theory prescribes that an individual should be free to publish what he or she likes and to hold and express opinions freely (Folarin, 2017). Central to this theory was John Milton's idea of the "self-righting process of the free marketplace of ideas," with the press constituting this marketplace. The reasoning was that good ideas would drive out bad ideas if both were guaranteed free expression in the press (the marketplace).

McQuail (1987) that the Libertarian Theory provides that publication of 'error' is protected equally with that of truth in matters of opinion and belief; that no restriction should be placed on the collection, by legal means, of information for publication; and that there should be no restriction on export or import or sending or receiving 'messages' across national frontiers.

The theory is descriptive of an era when official control of the press in the West became less fashionable in the 17th century. Although it pushes for press freedom, Folarin (2017) states that it does not prescribe freedom to defame, to indulge in unbridled obscenity, to assault individuals or to commit sedition. In this information age where the social media have offered this free marketplace and opened the floodgates of ideas and platforms for various information sharing and publication, even by citizen journalists, it is easy to see it as a reenactment of that era. However, as the marketplace appears replete

with misinformation and fake news, it would be interesting to find out if the self-righting process of this marketplace is active.

The Uses and Gratifications Theory (UGT), helps us to understand why and how people actively seek out specific media to satisfy needs. Diverging from other media effects theories that question “what does the media do to people?” UGT focuses on “what do people do with media”? It is interested in why people use media, what they use the media for, how users deliberately choose media that will satisfy given needs. Katz et al (1975) articulated various forms of gratifications obtained by media users to include, but not limited to, diversion, personal relationships, personal identity and surveillance (Blumler, 1979). Katz, Gurevitch and Haas (1973) saw mass media as a means by which individuals connect or disconnect themselves with this. They group the needs into five: **Cognitive needs** - Acquiring information and knowledge; **Affective needs** - emotion, pleasure, feelings; **Personal integrative needs** - creditability, stability, status; **Social integrative needs** – family and friends; and **Tension release needs** - escape and diversion.

The advent of the internet and subsequently the social media extended the frontiers of uses and gratifications theory. Users now have greater control over what they interact with and when they interact with it, including more content choices. Thus, other gratifications users of social media get have come to include socialising by staying in touch and meeting people through the sharing of messages, among others already mentioned. While UGT remains a popular theory in media research, it faces a number of criticisms with some believing it downplays the power and importance of the media. Despite the limitations, UGT has been applied with success to different aspects of mass communication, including social media.

## METHOD

The survey research method was used for this study. The questionnaire was used as a research instrument to obtain data from the area of the study which is Owerri metropolis spanning four local government areas of Owerri Municipal, Owerri West, Owerri North and Mbaitoli in Imo State, South-east Nigeria. The total population of Owerri metropolis is 901,700, according to the Nigerian Bureau of Statistics (Citypopulation, 2020). This is the projected population as of 2016. The breakdown is Owerri Municipal 172,600; Owerri West 159, 300; Owerri North 242, 800 and Mbaitolu 327, 000. It was from this population that a study sample of 480 was drawn using the Taro Yamane formula.

The questionnaire consisted of a Likert-type six points rating scale and multiple-choice list of options to allow the respondents to express their opinions. Of the survey questions, seven covered the use of WhatsApp to receive and share fake news; the other questions asked respondents about their attitudes to fake news and misinformation and fact-checking. The last section of six questions consisted of a series of fake news about the Covid-19 pandemic and respondents were asked to choose the social media platform where they first came across the information.

Purposive sampling technique was used for the questionnaire distribution. Respondents were recruited through WhatsApp groups based in Owerri metropolis - these included groups affiliated to organisations, churches and fellowships, clubs, alumni/old boys association, educational institutions, including Imo State University, Federal Polytechnic Nekede and Alvan Ikoku Federal College of Education, all in Owerri metropolis. Others included neighbourhood WhatsApp groups and political associations' groups. The survey was conducted between March 23, 2020, to April 15, 2020 - a large part of which the country was under lockdown because of the global pandemic.

The survey adopted a sample size of 480. However, out of 480 questionnaires administered to the respondents only 424 were answered and this number formed the basis for the analysis.

## DATA ANALYSIS

**Table 1: Demographic characteristics of respondents**

	Characteristics	N	%
<b>Gender</b>	Male	291	68.6%
	Female	133	31.4%
<b>Age</b>	18 - 25	54	12.5%
	26 - 35	163	38.5%
	36 - 45	175	41.3%
	46 - 55	20	4.8%
	56 - 65	8	1.9%
	65 - above	4	1%
	<b>Education</b>	O'Level	8
Graduate		196	46.2%
Post-Graduate		220	51.9%
<b>Locality</b>	Owerri Municipal LGA	187	44%
	Owerri West LGA	65	15.4%
	Owerri North LGA	134	31.7%
	Mbaitolu LGA	38	8.7%

n = 424

Source - Field study 2020

## Answering Research Questions

This section dealt with information collected from respondents and analysed in line with the research questions.

**Table 2: Frequency of WhatsApp use**

Statement	Almost Never	Rarely	Occasionally	Slightly Often	Often	Very Often	Total
How often do you use WhatsApp in a day?	4	8	16	16	136	244	424

*Source - Field study 2020*

Table 2 above shows how often respondents use WhatsApp in a day. From the table, it is obvious that 396 respondents representing over 93% of the distribution use WhatsApp regularly (often, slightly often and very often), while 28 respondents representing 7% don't use it or use it rarely.

**Table 3: Frequency of fake news receipt**

Statement	Never	Rarely	Sometimes	Slightly Often	Often	Very Often	Total
How frequently do you receive fake news via your WhatsApp?	4	16	140	36	172	56	424

*Source - Field study 2020*

Table 3 above shows the frequency in which respondents receive fake news via WhatsApp. From the table, it is obvious that 264 respondents representing over 62% of the distribution frequently receive fake news via WhatsApp (often, slightly often and very often), while 160

respondents representing 38% don't receive fake news on WhatsApp often or do so rarely.

**Research Question 1:** Is WhatsApp facilitating the spread of fake news and misinformation about the Coronavirus?

**Table 4.1: Use of WhatsApp in disseminating fake news**

Statement	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree	Total
Do you agree that WhatsApp is greatly used in disseminating fake news nowadays?	16	16	8	84	152	148	424

*Source - Field study 2020*

Table 4.1 above shows that 16 participants strongly disagree and disagree respectively that WhatsApp is greatly used in disseminating fake news nowadays, 8 slightly disagree, 84 slightly agree, while 152 and 148 respondents agree and strongly agree respectively.

**Table 4.2 Mean Score calculation**

Responses	N	WEIGHTED RESPONSES
Strongly Disagree	16	1
Disagree	16	2
Slightly Disagree	8	3
Slightly Agree	84	4
Agree	152	5
Strongly Agree	148	6

Using  $M = \frac{\sum X}{N}$  where:

X = any score in series of numbers; M = the mean ;  $\sum$  = the sum; N = the total number of series in a distribution

The mean score table above reveals that respondents agree that WhatsApp is greatly used for the dissemination of fake news nowadays (M=4.8).

**Table 5.1: Exposure to fake news on WhatsApp**

Statement	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree	Total
Do you agree that you are exposed to more fake news/misinformation on WhatsApp than on other social media apps?	20	68	36	80	160	60	424

Source - Field study 2020

**Table 5.2: Mean Score calculation**

Responses	N	WEIGHTED RESPONSES
Strongly Disagree	20	1
Disagree	68	2
Slightly Disagree	36	3
Slightly Agree	80	4
Agree	160	5
Strongly Agree	60	6

$$\text{Using } M = \frac{\sum X}{N}$$

The mean score table above reveals that respondents slightly agree that they are exposed to more fake news/misinformation on WhatsApp than on other social media apps? (M=4.1).

**Table 6.1: Sharing fake news using WhatsApp**

Statement	Never	Rarely	Sometimes	Slightly Often	Often	Very Often	Total
How frequently have you shared fake news and misinformation using WhatsApp?	228	136	48	0	60	0	424

Source - Field study 2020

**Table 6.2 Mean Score calculation**

Responses	N	WEIGHTED RESPONSES
Never	228	1
Rarely	136	2
Sometimes	48	3
Slightly Often	0	4
Often	60	5
Very Often	0	6

$$\text{Using } M = \frac{\sum X}{N}$$

The mean score table above reveals that respondents rarely share fake news and misinformation using WhatsApp (M=1.6).

**Table 7.1: WhatsApp Groups and Misinformation**

Statement	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Slightly Agree	Total
Do you agree that WhatsApp groups are fuelling the spread of fake news & misinformation about COVID-19?	20	40	40	76	120	128	424

*Source - Field study 2020*

**Table 7.2: Mean Score calculation**

Responses	N	WEIGHTED RESPONSES
Strongly Disagree	20	1
Disagree	68	2
Slightly Disagree	36	3
Slightly Agree	80	4
Agree	160	5
Strongly Agree	128	6

Using  $M = \frac{\sum X}{N}$

The mean score table above reveals that respondents agree that WhatsApp groups are fuelling the spread of fake news & misinformation about COVID-19 (M=4.5).

## Research Question 2: How do WhatsApp users feel about sharing fake news and misinformation in the app?

**Table 8.1: Feeling of WhatsApp Users to sharing fake news**

Statement	Very Unsatisfied	Unsatisfied	Indifferent	Slightly Satisfied	Satisfied	Very Satisfied	Total
How would you feel after realising a piece of news/information you shared on WhatsApp is Fake?	312	96	12	4	0	0	424

Source - Field study 2020

**Table 8.2: Mean Score calculation**

Responses	N	WEIGHTED RESPONSES
Very Unsatisfied	312	1
Unsatisfied	96	2
Indifferent	12	3
Slightly Satisfied	4	4
Satisfied	0	5
Very Satisfied	0	6

$$\text{Using } M = \frac{\sum X}{N}$$

The mean score table above reveals that respondents are very unsatisfied after realising a piece of news/information they shared on WhatsApp was fake ( $M=1.3$ ).

**Table 9.1: Frequency of Debunking Fake news by WhatsApp group users**

Statement	Never	Rarely	Sometimes	Slightly Often	Often	Very Often	Total
How often have you debunked information you see in your WhatsApp groups that you are sure is fake news?	40	48	96	36	128	76	424

*Source - Field study 2020*

**Table 9.2: Mean Score calculation**

Responses	N	WEIGHTED RESPONSES
Never	40	1
Rarely	48	2
Sometimes	96	3
Slightly Often	36	4
Often	128	5
Very Often	76	6

Using  $M = \frac{\sum X}{N}$

The mean score table above reveals that respondents slightly often debunk information they see in WhatsApp groups that they were sure were fake news (M=3.9).

**Table 10.1: Sharing information before cross-checking**

Statement	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Slightly Agree	Total
Do you agree that it is better to share information first before crosschecking if it is true or not?	236	112	8	8	20	40	424

Source - Field study 2020

**Table 10.2 Mean Score calculation**

Responses	N	WEIGHTED RESPONSES
Strongly Disagree	236	1
Disagree	112	2
Slightly Disagree	8	3
Slightly Agree	8	4
Agree	20	5
Strongly Agree	40	6

$$\text{Using } M = \frac{\sum X}{N}$$

The mean score table above reveals that respondents disagree that it is better to share information first before crosschecking if it is true or not ( $M=2.0$ ).

### Research Question 3: To what extent is WhatsApp used in spreading fake news and misinformation about the Coronavirus?

**Table 11.1: Frequency in receiving fake news about the Coronavirus**

Statement	Never	Rarely	Sometimes	Slightly Often	Often	Very Often	Total
How frequently did you receive information about the Coronavirus disease via WhatsApp that turned out to be fake news & misinformation?	20	72	120	40	108	64	424

Source - Field study 2020

**Table 11.2 Mean Score calculation**

Responses	N	WEIGHTED RESPONSES
Never	20	1
Rarely	72	2
Sometimes	120	3
Slightly Often	40	4
Often	108	5
Very Often	76	6

$$\text{Using } M = \frac{\sum X}{N}$$

The mean score table above reveals that respondents slightly often received information about the Coronavirus disease via WhatsApp that turned out to be fake news & misinformation (M=3.8).

**Table 12: Selected fake news about coronavirus disease and the social media app respondents received them on**

s/n	Statement	Facebook	WhatsApp	Telegram	Instagram	Twitter	Not seen	Total
1	Uber driver who drove the Italian man with Coronavirus demanding N100m or he will spread the Coronavirus nationwide	136 (32%)	204 (48%)	4 (1%)	8 (2%)	24 (6%)	48 (11%)	424 (100%)
2	To be safe from Coronavirus people should shave their beards	112 (26%)	124 (29%)	12 (3%)	8 (2%)	20 (5%)	148 (35%)	424 (100%)
3	In order to prevent Coronavirus disease "Keep your throat moist", avoid spicy food and "load up on vitamin C"	68 (16%)	268 (63%)	16 (4%)	12 (3%)	4 (1%)	56 (13%)	424 (100%)
4	Coronavirus was part of China's "covert biological weapons programme" and may have leaked from the Wuhan Institute of Virology.	84 (20%)	252 (59%)	8 (2%)	8 (2%)	16 (4%)	56 (13%)	424 (100%)
5	Coronavirus can be cured by a bowl of freshly boiled garlic water	92 (22%)	224 (53%)	4 (1%)	8 (2%)	4 (1%)	92 (21%)	424 (100%)
6	If the Coronavirus is exposed to temperatures of 26-27 degrees Celsius, it dies because it does not survive in hot regions	80 (19%)	316 (74%)	4 (1%)	4 (1%)	8 (2%)	12 (3%)	424 (100%)

Source - Field study 2020

Table 11 above shows that 204 respondents representing 48% of the sample reported that they received the fake news about an Uber

driver who drove the Italian man (Nigeria's COVID-19 index case) with Coronavirus demanding N100m or he will spread the disease nationwide on WhatsApp. 63% or 268 of respondents also report that WhatsApp was the source of the fake news about keeping the throat moist in order to prevent Coronavirus. For the fake news about Coronavirus being part of "China's covert biological weapons programme", 252 respondents representing 59% of the sample say they first saw it on WhatsApp. Furthermore, 53% or 224 respondents said they came across the misinformation about Coronavirus being cured by a bowl of freshly boiled garlic water on WhatsApp, as also did 316 respondents representing 74% of the sample, who reported that they first encountered the fake news that "if the Coronavirus is exposed to temperatures of 26-27 degrees Celsius, it dies because it does not survive in hot regions." on WhatsApp. On the other hand, for the false information that shaving beards could make people safe from the Coronavirus, only 124 respondents or 29% of the sample report seeing it on WhatsApp whereas 35% or 148 respondents claim they had not seen it.

### **Testing of Hypothesis**

In testing the hypothesis stated, the researcher used Ordinal Regression analysis.

**H<sub>01</sub>:** There is no significant relationship between the frequent use of WhatsApp and exposure to fake news and misinformation about the Coronavirus disease.

**Table 13: Regression analysis for the relationship between the frequent use of WhatsApp and exposure to fake news and misinformation about the Coronavirus disease.**

<b>Model Fitting Information</b>				
Model	-2 Log Likelihood	Chi- square	df	Sig
Intercept Only	168.603			
Final	107.710	60.892	5	.000

Link function: Logit

<b>Goodness-of-fit</b>			
	Chi-Square	df	Sig.
Pearson	44.114	20	.001
Deviance	49.540	20	.000

*Link function: Logit*

An ordinal regression analysis was calculated to predict exposure to fake news and misinformation about the Coronavirus disease based on frequent use of WhatsApp. From the model fitting information in Table 12, we see that the difference between the two log-likelihoods—the chi square—has an observed significance level of less than 0.0005. This means that we can reject the null hypothesis that the model without predictors is as good as the model with the predictors.

Based on the small observed significance level (.000), we reject the null hypothesis and state that there is a relationship between exposure to fake news and misinformation about the Coronavirus disease

## DISCUSSION OF FINDINGS

The study showed that WhatsApp is greatly facilitating the spread of fake news and misinformation (weighted mean 4.8). It was also found that respondents receive fake news and misinformation on WhatsApp more than on other social media applications. This finding is collaborated by Hitchen, Hassan, Fisher and Cheesman (2019, p. 32) whose work on ‘WhatsApp and Nigeria’s 2019 elections: mobilising the people, protecting the vote’ found out that “In Nigeria, WhatsApp is both a major conduit for the spread of disinformation and misinformation and yet a key tool for tackling ‘fake news’”. Hitchen et al in their work state that: “Our survey data shows that across respondents in Kano and Oyo there is a normative agreement that sharing ‘fake news’ is never justified – 83% of people surveyed agreed with that statement – but still misinformation and disinformation spread” (p. 32).

The implication is that WhatsApp to a great extent is aiding the spread of fake news and misinformation online, first by exposing users to a lot of fake news and making it easier for them to pass the misinformation along. Many respondents agreed that they forwarded fake news to others without fact-checking or corroborating the information while using app. This phenomenon helped fake news, and most likely fake news about the coronavirus too easily go viral, reach many others and thus perpetuate the misleading information.

The finding corroborates the theories of the Libertarian Free Press theory and Uses and Gratifications theory (UGT). While WhatsApp is seen as offering that marketplace for freedom of expression, it also answers one question that dangles around the UGT – what do people do with media? One of the things they do with WhatsApp is to spread fake news as the medium offers them a measurable cover.

This study also showed that respondents were very unsatisfied after realising a piece of news or information they shared on WhatsApp was fake (weighted mean 1.3). It was also found that

respondents slightly often debunk information they see in WhatsApp groups that they were sure were fake news (M=3.9). This finding is corroborated by Tandoc, Lim and Ling's (2019) *'Diffusion of disinformation: How social media users respond to fake news and why,'* where they report that most social media users in Singapore disregard the fake news and misinformation seen on social media applications. The study which used a mixed-methods approach combining a large national survey with In-depth interviewing of Singaporeans also reveals that users would give corrections when the news is strongly relevant to them and to the people around them or who they are intimate with. This outcome is in line with the heuristic approach to uses and gratifications theory which posits that the audience is active and its media use is goal-oriented.

This implies that users of WhatsApp have enough awareness about themselves to be unsatisfied with fake news disseminated on the app and when it is relevant to them use the app to debunk such misleading and false information. In the case of the Coronavirus pandemic, a lot of this behaviour was seen. At first a particular cure, rumour or hoax about the virus will go viral on WhatsApp and later the same app will be used by mostly the same users to trend or make go viral the correction to the misinformation.

This also dovetails perfectly with the Libertarian (free press) theory which posits that there should be the free flow of information and audience members are free to think for themselves, to voice their opinions and to decide on the authenticity or otherwise of any information and if possible to debunk wrong information through expressing themselves.

Findings also showed that respondents slightly often received information about the Coronavirus disease via WhatsApp that turned out to be fake news & misinformation (weighted mean 3.8). The hypothesis that there is no significant relationship between the frequent use of WhatsApp and exposure to fake news and

misinformation about the Coronavirus disease was tested using Regression Analysis. The hypothesis was rejected.

This study found that there is a significant relationship between the use of WhatsApp and exposure to fake news and misinformation about the Coronavirus disease. The implication was that WhatsApp played a significant role in making fake news about the novel virus to become an infodemic and create the public health challenge for many countries and the WHO. As millions of smartphone owning Nigerians use WhatsApp, it meant they were invariably exposed to fake news about Covid-19 on the app.

This finding was corroborated by Bapaye and Bapaye (2020). Their study conducted in India surveyed 1,137 respondents from 20 Indian states and union territories and presented some popular fake news circulating on WhatsApp asking respondents to indicate true or false. It showed that people over 65 years of age were more vulnerable to fake news disseminated on WhatsApp.

The finding per the themes of uses and gratifications theory of mass communication reveals that respondents use social media to seek information and also to share information with others. This also includes using social media to self-educate. An exploratory study conducted by Whiting and Williams (2013) on 'Why people use social media: a uses and gratifications approach' reveal that 'participants reported that they use social media to: find information about sales, deals, or products' (p. 366).

## CONCLUSION

WhatsApp is greatly facilitating the spread of fake news and misinformation about many issues in Nigeria and social media users are more exposed to fake news on WhatsApp than other applications. The researchers also concluded that WhatsApp users are not satisfied when they unwittingly pass on fake news and that many users debunk fake news on their WhatsApp groups. Finally, fake news about the Coronavirus was spread to a great extent using WhatsApp. The more

frequent WhatsApp was used the more exposed to fake news about COVID-19 a user was.

## RECOMMENDATIONS

1. Users of WhatsApp should be aware that a lot of fake news and misinformation is spread using the app and thus should increase their vigilance in order not to become spreaders of misinformation. They must learn to fact-check information received on their app before forwarding such.
2. The Nigerian Centre for Disease Control (NCDC), Federal Ministry of Information and health care operators should target WhatsApp with information about the Coronavirus to mitigate the fake news spreading in that application.

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